

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

application of

Docket No: Q80999

Mayumi TAKAMORI, et al.

Appln. No.: 10/827,448

Group Art Unit: 1752

Confirmation No.: 2726

Examiner: not yet assigned

Filed: April 20, 2004

For:

NOVEL ORGANOMETALLIC IRIDIUM COMPOUND, PROCESS OF PRODUCING

THE SAME, AND PROCESS OF PRODUCING THIN FILM

UNDER 37 C.F.R. §§ 1.97 and 1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents, other than any U.S. patents and patent publications, is submitted herewith.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

INFORMATION DISCLOSURE STATEMENT

U.S. Appln. No.: 10/827,448

Attorney Docket No. Q80999

The present Information Disclosure Statement is being filed thirty days or fewer from the

communication from a foreign patent office and a Statement Under 37 C.F.R. §1.704(d) is

attached.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for

foreign language documents, Applicant encloses herewith a copy of a Communication from a

foreign patent office in a counterpart application citing such documents, together with an

English-language version (if not already included) of at least that portion of the Communication

indicating the degree of relevance found by the foreign patent office.

The submission of the listed documents is not intended as an admission that any such

document constitutes prior art against the claims of the present application. Applicant does not

waive any right to take any action that would be appropriate to antedate or otherwise remove any

listed document as a competent reference against the claims of the present application.

Respectfully submitted,

Kg/1032,765

SUGHRUE MION, PLLC

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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: October 1, 2004

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Complete if Known			
Application Number	10/827,448		
Confirmation Number	2726		
Filing Date	April 20, 2004		
First Named Inventor	Mayumi TAKAMORI		
Art Unit	1752		
Examiner Name			
Attorney Docket Number	Q80999		
	Application Number Confirmation Number Filing Date First Named Inventor Art Unit Examiner Name		

AT & TR	AGE	U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No.1	i i l Kind (I WIWI-DID-YYYY	Name of Patentee or Applicant of Cited Document	
		US 5,130,172	A	07-14-1992	Hicks, et al.	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date	Name of Patentee or	Translation ⁶	
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	1 ranslation
		wo	91/01361	Α	02-07-1991	Fuel Tech, Inc.	
		JP	11-292888	A	10-26-1999	Kojundo Chem. Lab Co., Ltd.	Abstract

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation ⁶
		FUJISAWA, et al., "Ir thin films for PZT capacitors prepared by MOCVD using a new Ir precursor",	
		Materials Research Society Symposium Proceedings, vol. 784, 2004, pages 269-274	
		KAWANO, et al., "A novel iridium precursor for MOCVD", Materials Research Society Symposium Proceedings, vol. 784, 2004, pages 145-150	
		BUCHMANN, et al., "Reactions with metal-coordinated olefins. Part VI. Trnasition metal NMR	
		spectroscopy. Part X. Protonated diolefin complexes: model systems for carbon-hydrogen activation via metal complexation", Helvetica Chimica Acta, vol. 70, no. 6, 1987, pages 1487-1506	i i
		GREEN, et al., "Helium (He I) and helium (He II) photoelectron spectroscopic studies of the bonding in cobalt, rhodium and iridium cyclopentadienyl diene complexes", Organometallics, vol. 3, no. 2, February 1984, pages 211-217	
		POWELL, "Diene and dienyl complexes of transition elements V. Preparation of .etacyclopentadienyl.etamethyl dienoaterhodium and -iridium complexes: base hydrolysis and protonation studies", Journal of Organometallic Chemistry, vol. 243, no. 2, February 8, 1983, pages 205-211	
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		POWELL, "Diene and dienyl complexes of transition elements. II. The protonation of .etadiaryldienone (.etalcyclopentadienyl)rhodium(I) and -iridium(I) complexes", Journal of Organometallic Chemistry, vol. 206, no. 2, February 24, 1981, pages 229-237	
		POWELL, ".eta.5-Cyclopentadienyleta.5-syn-1-methylpentadienylrhodium and iridium cations - preparation and reactions with nucleophiles", Journal of Organometallic Chemistry, vol. 165, no. 3, February 6, 1979, pages C43-C46	
		POWELL, "Diene complexes of rhodium and iridium: preparation of complexes of the type 'M(diene)(C5H5)! using dienone and dienal ligands", Journal of Chemical Research, Synopses, no. 8, 1978, page 283	
	JOHNSON, et al., "Reactivity of coordinated ligands. XIII. Electrophilic substitution reactions of 1,3-cyclohexadiene complexes of rhodium (I) and iridium (I)", Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry, no. 19, 1972, pages 2084-2089		
		WINKHAUS, et al., "Iridium(I)-Olefinkomplexe", Chemische Berichte, Verlag Chemie GMHB. Weinheim, DE, vol. 99, 1966, pages 3610-3618	
		ORO, "pi-Cyclopentadienyl (butadiene)iridium(I)", Inorganica Chimica Acta, vol. 21, 1977, page L6	
Examiner Si	gnature	Date Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ³Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to indicate here if English language Translation is attached.

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STATEMENT UNDER 37 C.F.R. § 1.704(d)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The undersigned hereby states, upon information and belief:

That each item of information contained in the Information Disclosure Statement filed concurrently herewith was cited in a communication from a foreign patent office in a counterpart foreign application, and that the communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of said Information Disclosure Statement.

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23373
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10g/lo32,765